

REMARKS/ARGUMENTS

Applicants gratefully acknowledge the Examiner's finding of allowable subject matter in claim 10.

Further in the Office Action, the Examiner has rejected the only independent claim in the application, i.e., claim 1, under 35 U.S.C. § 103(a) as being unpatentable over Yamada in view of Nobumasa et al. The Examiner argues that Yamada discloses an action part for a piano which is pivotally moved to transit key depression energy generated by depression of the key to a hammer, where the action part is formed by a thermoplastic resin molded article. First, Applicants respectfully submit that Yamada does not disclose an action part that transmits key depression energy to a hammer, as claimed by Applicants and as will be further explained below. Therefore, for at least this reason, Applicants respectfully submit that claim 1 is allowable over the cited references.

As claimed in claim 1, Applicants claim an action part which is pivotally mounted and which transmits key depression energy to a hammer. Thus, in Applicants' claimed invention, the claimed action part is a separate element from the hammer. Applicants respectfully submit that Yamada does not disclose any such action part as claimed by Applicants. As will be discussed further below, Yamada discloses a hammer felt, which is a part of a hammer. Therefore, Yamada cannot teach an action part which transmits key depression energy to a hammer because the element in Yamada that the Examiner is interpreting to be an "action part" is a part of the hammer, i.e., the hammer felt.

In Applicants' claimed invention, the invention is directed to an action part for a piano. As recited in claim 1, the action part is pivotally moved along with depression of a key to transmit key depression energy to a hammer. Thus, the action part is distinguished from the hammer. According to the invention, since the action part is formed by a thermoplastic resin molded article that is molded by a long fiber process and contains long fibers for reinforcement, it can have a very high rigidity compared with an action part made only of a synthetic resin. This makes it possible to reduce transmission loss of key depression

energy caused by deformation of the action part occurring when the action part is pushed up by the key, thereby to increase rotational speed of the hammer.

(Please see page 4, lines 9-31 of Applicants' specification.)

In contrast, Yamada is directed to a hammer felt which is a part of a hammer, and thus does not disclose the claimed action part. Therefore, Applicants respectfully submit that Yamada does not disclose an action part as claimed by Applicants, and thus, claim 1 is allowable for at least this reason.

Further, with respect to the patentability of claim 1 over Yamada, although Yamada discloses that the hammer felt contains thermoplastic resin fibers, the hammer felt is formed by a pressing process (see col. 2, lines 10-22 and col. 3, lines 25-29) and is not formed by a molded article that is molded by a long fiber process, as claimed by Applicants.

Additionally, in rejecting claim 1, the Examiner was required to attempt to modify the hammer felt of Yamada such that it contains long fibers for reinforcement as the Examiner argued is disclosed in Nobumasa. In arguing for this combination, the Examiner argues that this combination would provide "an action part with high strength characteristics." Applicants respectfully submit that even if the combination can be made, the combination still does not disclose an action part formed by a molded article that is molded by a long fiber process. Applicants respectfully submit that Nobumasa merely discloses a composite material of laminated structure comprising a porous fiber layer constructed of reinforcing fibers, and a fiber reinforced plastic layer comprising reinforcing fibers and a matrix resin. Therefore, even if Nobumasa could be combined with Yamada, it still does not correct the deficiency in Yamada of not disclosing an action part formed by a molded article that is molded by a long fiber process.

Further, Applicants respectfully submit that it is improper to attempt to modify Yamada based on Nobumasa. Any such attempted modification would render the hammer felt of Yamada unsatisfactory for its intended purpose. In Yamada, the hammer felt is intended to have a moderate hardness. (See col. 2, lines 61-64.) In fact, in Yamada, in describing the prior art, Yamada discusses

that in the past, hammer felts were formed by blending wool fibers with thermoplastic synthetic resin fibers. However, as discussed by Yamada, this entails various difficulties in the felting process and results in a hammer head which is too hard and produces objectionable noises at the time of hammering, rendering the tuning operation difficult. (See col. 1, lines 28-35.) Therefore, Yamada's hammer felt is highly sensitive to the composition of the materials that comprise the felt and to how the hammer felt is formed. The hammer felt cannot be too hard or too soft and must be formed to result in a desired sound quality.

Applicants respectfully submit that there would be no motivation to modify the hammer felt of Yamada to include Nobumasa's porous fiber layer constructed of reinforcing fibers and/or the fiber reinforced plastic layer comprising reinforcing fibers and a matrix resin, and that any such attempted modification would result in a hammer felt that is unsatisfactory for its intended purpose. Any modification of the hammer felt of Yamada to include long fibers for reinforcement would change the sound characteristics of the hammer felt. Additionally, there would be no motivation to modify Yamada to include such reinforcing long fibers. In Applicants' invention, they are included in an action part that transmits key depression energy to a hammer. There would be no motivation to include such fibers in the sound producing hammer felt of Yamada. Therefore, Applicants respectfully submit that claim 1 is allowable for at least these additional reasons as well.

Therefore, Applicants respectfully submit that claim 1 is allowable over Yamada and Nobumasa. Applicants respectfully submit that even if the combination can be made, the modified Yamada reference still does not disclose an "action part". Yamada merely discloses a hammer felt. Nobumasa does not cure the deficiencies of Yamada. Additionally, Applicants respectfully submit that there would be no motivation to modify the sound producing hammer felt of Yamada to include the laminated structure of Nobumasa and any attempt to

modify Yamada's hammer felt would result in the hammer felt being rendered unsatisfactory for its intended purpose.

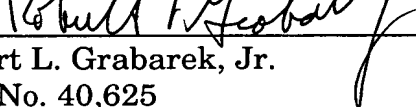
Applicants respectfully submit that the application is now in condition for allowance with claim 1 and claims 2-10, which depend therefrom, being allowable. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response. Please charge any such fee or any deficiency in fees, or credit any overpayment of fees, to Deposit Account No. 05-1323 (Docket 056272.52903US).

Respectfully submitted,

CROWELL & MORING LLP

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Attachments

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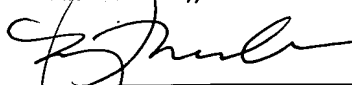
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